#### EXHIBIT A

# ERTS-A STATUS REPORT For Period 9-17-72 to 10-16-72 NFMOA/EARTHSAT MENHADEN INVESTIGATION SR 258

P. Maughan, Principal Investigator

### INTRODUCTION

This is the fifth ERTS-S status report on the progress of the NFMOA/EARTHSAT Menhaden ERTS investigation.

Field collection of surface data from calibration vessels has been terminated and activity has now shifted to the interpretation and analysis of the ERTS imagery and the integration of data from other sources.

#### PROGRESS TO DATE

Fish availability during the reporting period varied from poor to excellent with both very good and very sparse catches occurring. Windy weather in early October also hampered fishing.

The last "Main Day" in which EARTHSAT/NFMOA participated was 28-29 September. Actual satellite overpass over the Eastern Mississippi Sound occurred on 29 September and over the western end on 30 September. However, due to weather constraints the concurrent aircraft overflights occurred on 28 September. On that day the NASA NP3A aircraft overflew a portion of Mississippi Sound slightly west of the fishing activity. At the time of satellite overpass the Eastern Mississippi Sound experienced cloud cover greater than 50%, thus masking much of the desired area.

No Sunday patrols in industry aircraft were flown by project personnel during reporting period due to the unavailability of space in those aircraft.

Nearly all surface data collected on the calibration vessels over the summer has been punched on computer cards and submitted for inclusion in the master data bank at the Slidell, Louisiana, computer facility. Data from other experimental participants are also entering the data bank as they are processed. Preliminary computer listings and other computer products including land mass plots of the surface data and several regression analyses have been requested. As more data is available from the other experimental participants and the data bank becomes more complete, those data will be integrated into our analyses. Dr. Allan Marmelstein is currently stationed at the Mississippi test facility

(E72-10152) INVESTIGATION TO IMPROVE MENHADEN FISHERY AND PREDICTION Progress Report, 1 Aug. - 31 Oct. 1972 P.M. Maughan (Earth Satellite Corp.) 20 Oct. 1972 4 p

N72-33310

072 4 p Unclas CSCL 08A G3/13 00152 in order to personally insure that the NFMOA/EARTHSAT data is integrated into the master data bank and that data from other sources is readily available to us.

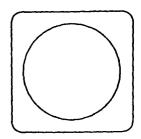
As of 16 October photos from both the eastern and western ERTS passes over Mississippi Sound on 24 and 25 August had been received and cataloged at the EARTHSAT Washington, D.D. office. A partial set of imagery from the 12 September pass over the western part of the Sound has also arrived.

## PLANNED ACTIVITIES

With the termination of the field program, all activity has turned to compilation and analysis of the data that has been gathered. Interpretation of the available ERTS imagery will begin immediately at the EARTHSAT Washington, D.C. office. Both conventional photo interpretation and sophisticated image enhancement devices will be used in the analysis of the ERTS images. The two midsummer Main Day periods, 6 and 7 August and 24 and 25 August will be emphasized in the analysis due to availability of the imagery and the availability of calibration vessel data for those days. Additionally, on the Main Days multi-stage sampling data from ERTS, aircraft, and calibration and other vessels is available. It is expected that results of these analyses may be extrapolated to non-Main Day data.

# EARTH SATELLITE CORPORATION

(EaribSai)



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October 20, 1972

National Aeronautics and Space Administration Goddard Space Flight Center Greenbelt Road Greenbelt, Maryland 20771 E72-101.5.2 CR-/2828

ATTN:

Distribution

SUB:

Type I Progress Report "Investigation To Improve Menhaden Fishery

and Prediction." (SR 258) Dr. Paul M. Maughan, PI.

(PR 507), Contract NAS 5-21743.

REPORTING PERIOD: 1 August 1972 - 31 October 1972

#### Gentlemen:

This Type I Progress Report is submitted in lieu of the Type II Progress Report due on 20 October 1972. Due to delayed receipt of the appropriate ERTS imagery no analyses have been accomplished to date, therefore there is no technical progress to report in the Type II format. It is requested that the due date for the first Type II Report be extended to 20 December 1972, at which time a substantive report will be submitted.

Collection of ground truth data at Escatawpa, Mississippi, continued through the reporting period. Three "Main-Day" sampling efforts concurrent with ERTS overpass were accomplished, with increased personnel in the field on overpass days. The last routine patrol with industry aerial fish spotters was 3 September 1972. No patrols have been flown since then, due to lack of available passenger space. Work accomplished between mid-August and mid-September has been summarized in an ERTS-A Status Report distributed to individuals actively working on the subject contract. This Status Report is attached as Exhibit A.

Personnel actions include a reduction in field technicians from two to one. On 14 August Chris Lagarde was hired as a field technician. John Grafton and Glennis Penton terminated their positions as field technicians on 25 August. Chris Lagarde will be the sole field technician for the remainder of the project.

No published articles and/or papers, etc. were released during the reporting period. Because no ERTS imagery was received during the reporting period, an ERTS Image Description Form is not included as part of this report.

Sincerely,

EARTH SATELLITE CORPORATION

Paul M. Maughan

Principal Investigator